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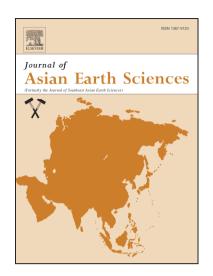
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CCEPTED MANUSCRIPT

Textures and trace element composition of pyrite from the Bukit Botol volcanic-hosted

massive sulphide deposit, Peninsular Malaysia

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ABSTRACT

The Bukit Botol volcanic-hosted massive sulphide (VHMS) deposit is located in the Central

Belt of Peninsular Malaysia. The deposit occurs in a package of Permian-aged coherent felsic

volcanic and volcaniclastic rocks which have a geochemical signature indicative of a volcanic

arc tectonic setting. Mineralisation shows distinct ore zonation, forming a stringer to massive

sulphide zone at the footwall followed by barite lenses and exhalite layers (Fe-Mn ore) at the

top. Mineralogy is characterised by pyrite as the major sulphide mineral, with minor

chalcopyrite, sphalerite, and rare galena; traces of gold, silver- and tin-bearing minerals also

occur in the massive sulphide and barite ores. Laser ablation inductively coupled plasma

mass spectrometry (LA-ICP-MS) analysis combined with the textural characteristics of

pyrite provides evidence for significant variations of trace elements in different pyrite types

at Bukit Botol, having three types of pyrite in the paragenetic sequence. The concentrations

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